AMENDMENTS TO THE CLAIMS

1. (Original) In a wireless network, a method for transmitting analog signals to at least one wireless terminal, the method comprising:

receiving a digital signal that defines (i) bearer data for each of a plurality of channels; and (ii) control information for each of the plurality of channels;

parsing from the control information, a power level and a modulation frequency, the power level being one of a plurality of possible power levels and the modulation frequency being one of a plurality of possible modulation frequencies;

based on the power level and the modulation frequency, responsively generating an analog signal having a plurality of analog channels that defines the bearer data in the digital signal; and

transmitting the analog signal to the at least one wireless terminal.

2. (Original) The method of claim 1, wherein responsively generating the analog signal comprises:

applying a spreading sequence to each channel of bearer data in the digital signal to produce a spread spectrum signal for each channel of bearer data;

amplifying the spread spectrum signal for each channel of bearer data to the power level defined by the control information for the channel;

adding the spread spectrum signal for each channel of bearer data to produce a sum of spread spectrum signals;

converting the sum of the spread spectrum signals into the analog signal; and

modulating the analog signal to the modulation frequency defined by the control information.

3. (Original) The method of claim 2, wherein the spreading sequence is selected from the group consisting of a Walsh code and a Gold code.

4. (Original) The method of claim 1, wherein the control information further comprises a spreading sequence and a PN offset.

5. (Currently amended) In a wireless network, a method comprising:

receiving, from a first network entity, bearer data for a plurality of channels;

establishing (i) a modulation frequency for an analog signal that is to define the bearer data for the plurality of channels and (ii) a power level for each channel of bearer data; and

outputting to a second network entity, a digital signal defining (i) the bearer data; (ii) the modulation frequency; and (iii) the power level[.], and

wherein outputting (i) the bearer data (ii) the modulation frequency; and (iii) the power level comprises outputting to the second network entity a frame defining the (i) the bearer data, (ii) the modulation frequency, and (iii) the power level.

6. (Original) The method of claim 5, wherein establishing the modulation frequency and the power level comprises receiving, from a user-interface, a user-indication of the power level and the modulation frequency.

7. (Cancelled)

8. (Original) The method of claim 5, wherein (i) the first network entity is selected from the group consisting of a PSDN and an MSC; and (ii) the second network entity is a radio link converter unit.

9. (Original) In a wireless network, a system for transmitting analog signals to at least one wireless terminal, the system comprising:

a receiver arranged to receive a digital signal that defines (i) bearer data for each of a plurality of channels; and (ii) control information for each of the plurality of channels;

a parser arranged to parse from the control information, a power level and a modulation frequency, the power level being one of a plurality of possible power levels and the modulation frequency being one of a plurality of possible modulation frequencies;

means for responsively generating, based on the power level and the modulation frequency, an analog signal having a plurality of analog channels that defines the bearer data in the digital signal; and

an RF power amplifier arranged to transmit the analog signal to the at least one wireless terminal.

10. (Original) The system of claim 9, wherein the control information further comprises a spreading sequence and a PN offset.

11. (Original) In a wireless network, a system for transmitting analog signals to at least one wireless terminal, the system comprising:

a receiver arranged to receive a digital signal that defines (i) bearer data for each of a plurality of channels; and (ii) control information for each of the plurality of channels;

a parser arranged to extract from the control information, a power level and a modulation frequency, the power level being one of a plurality of possible power levels and the modulation frequency being one of a plurality of possible modulation frequencies;

a spreading unit arranged to define, for each of the plurality of channels, a spread spectrum signal;

a power control unit arranged to amplify the spread spectrum signal for each of the plurality of channels, the spread spectrum signal being amplified to the power level defined by the control information for the channel;

an adder arranged to sum the spread spectrum signal for each channel to produce a sum of spread spectrum signals;

a digital-to-analog converter arranged to convert the sum of the spread spectrum signals into an analog signal;

a modulator arranged to modulate the analog signal to the modulation frequency defined by the control information; and

an RF power amplifier arranged to transmit the analog signal to the at least one wireless terminal.

12. (Original) The system of claim 11, wherein (i) the control information includes a spreading sequence for each channel of the digital signal; and (ii) the spreading unit is further arranged to apply to each channel of the digital signal the spreading sequence.

13. (Original) The system of claim 11, wherein the control information includes a PN offset for the analog signal, the system further comprising a PN offset unit arranged to apply to the sum of spread spectrum signals the PN offset.

14. (Currently amended) In a wireless network, a system comprising:

a processor;

memory; and

computer instructions stored in memory and executable by a processor for performing the functions of:

receiving, from a first network entity, bearer data for a plurality of channels;

establishing (i) a modulation frequency for an analog signal that is to define the bearer data for the plurality of channels and (ii) a power level for each channel of bearer data; and

outputting to a second network entity, a digital signal defining (i) the bearer data; (ii) the modulation frequency; and (iii) the power level[.] and,

wherein outputting (i) the bearer data, (ii) the modulation frequency, and (iii) the power level comprises outputting to a second network entity a frame defining (i) the bearer data, (ii) the modulation frequency, and (iii) the power level.

15. (Original) The system of claim 14, wherein (i) the first network entity is selected from the group consisting of a PSDN and an MSC; and (ii) the second network entity is a radio link converter unit.

16. (Original) The system of claim 14, further comprising a user-interface and wherein the computer instructions stored in memory and executable by a processor for performing the function of establishing the power level and the modulation frequency comprises:

computer instructions executable by the processor for receiving from the user-interface, (i) a user-indication of the power level for each channel of bearer data; and (ii) the modulation frequency for the analog signal.

17. (Cancelled)

18. (Original) A system comprising:

a digital base station;

a radio link converter unit;

wherein the digital base station is communicatively coupled to the radio link converter unit;

the digital base station arranged to:

receive bearer data for a plurality of channels;

establish (i) a modulation frequency for an analog signal that is to define the bearer data for the plurality of channels; and (ii) a power level for each channel of bearer data; and

output to the radio link converter unit, a digital signal defining (i) the bearer data; (ii) the modulation frequency; and (iii) the power level; and

the radio link converter unit arranged to:

receive a digital signal that defines (i) bearer data for each of a plurality of channels; and (ii) control information for each of the plurality of channels;

parse from the control information, a power level and a modulation frequency, the power level being one of a plurality of possible power levels and the modulation frequency being one of a plurality of possible modulation frequencies;

based on the power level and the modulation frequency, responsively generate an analog signal having a plurality of analog channels that defines the bearer data in the digital signal; and

transmit the analog signal to the at least one wireless terminal.